

**Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive
Capacity-building and Sustainable Development, second session
Geneva, 19-21 March 2014**

**Science, technology and innovation capability gaps, policy environment, and evolving policy
tools for sustainable development**

Statement

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Slide 1: Cover page

Madame Chairperson

Distinguished delegates,

Ladies and gentlemen,

I would like to welcome you to the second session of the **Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development**.

This session builds on the work accomplished in the pre-Doha cycle of the multi-year expert meetings on entrepreneurship and science, technology and innovation issues. This is the first time that a session of the multi-year expert meeting is fully devoted to issues of science, technology and innovation (STI) policy, which underscores the importance that member States place on science, technology and innovation as development tools. This view is clearly expressed in the Doha mandate, which recognizes that the development of a strong science,

technology and innovation capacity is key to addressing persisting and emerging trade and development challenges faced by developing countries.

In this context, I would like to mention the discussions on science technology and innovation in the post-2015 development agenda are taking place in New York. I would also like to draw your attention to the work of the United Nations Commission on Science and Technology for Development (CSTD) - for which UNCTAD serves as the substantive secretariat - and to the relationship that exists between this work and the work undertaken by UNCTAD on technology and innovation for development, in the context of the present expert group meeting. A number of the issues that will be examined during the coming days are also considered by the CSTD, including for instance in the framework of the discussions on UNCTAD's STIP reviews. This year the CSTD has two priority themes: the first one is "Science, Technology and Innovation in the post-2015 development agenda" and the second is on "ICT for inclusive development". The discussions and outcome of this expert meeting will be shared with the CSTD to ensure cross-fertilization between these two fora.

I would now like to share with you the main findings of the note prepared by UNCTAD as an input for this expert meeting. The Note addresses issues on STI capability gaps, policy environment, and evolving policy tools for sustainable development. Since, as I said, this multi-year expert meeting builds on the outcomes of an earlier cycle of meetings on STI, the note gives prominence to certain issues that could not be considered in sufficient detail in those meetings, or for which new trends have emerged.

Slide 2: Outline

As it is widely acknowledged, technological progress and innovation are at the heart of development. However, strong innovation performance remains a feature of only a handful of

countries—those countries in which innovation is an embedded feature of the economic system. That is the reason why the improvement of the national performance on science, technology and innovation to advance structural transformation has become a key goal for many developing countries. Consequently, researchers and policy makers are increasingly paying attention to the policies and strategies that would strengthen the components of the national innovation system and their interactions.

Let me then start this presentation by briefing going through the topics that will be presented today:

- 1) The main innovation capability gaps that exist in developing countries and the importance for developing countries of enabling environment that promotes innovation;
- 2) Considerations that are relevant to developing countries as they design their STI policies, and the evolving nature of innovation policies and some current trends in this area;
- 3) Internationalization of national systems of innovation.

Slide 3: Enabling environments for innovation

Firms do not innovate in isolation. The environment is vital. A practical way to analyze information about the factors influencing the performance of national systems of innovation is to categorize the situation of countries in terms of their absorptive capacities and innovative capabilities.

A forthcoming publication from UNCTAD about technology transfer (from which the chart on the screen is taken) estimated the gaps in terms of absorptive capacities and innovative capabilities between developed and developing countries. The gaps were estimated using methodologies available in the literature and country-level indicators generally accepted as proxies to measure these capacities. In particular, the gaps represent the difference between the average performance between developed and developing countries in each indicator.

In terms of absorptive capacities there has been a reduction between developed and developing countries in some of the relevant dimensions, such as secondary education enrolment, and mobile and fixed telephony subscriptions as illustrated by the chart. In contrast, in terms of innovative capabilities, the gap has increased. This is especially important in terms of scientific and technological outputs. It is worth noting, however, that in addition to this general comparison between developed and developing countries, there may be important differences within countries in these same areas.

Also, it is relevant to recognize an important fact frequently observed in empirical studies of innovation systems in developing countries. In least developed countries, the interactions between the elements of the system are likely to be weak or non-existent. Below a certain threshold level of development, innovative and absorptive capacities are low and their interaction is unlikely to be an important driver of economic development.

In consequence, because the technological gaps hinder the ability of economies to make the most of their innovation efforts, public policies should be designed with the view to target these gaps.

Slide 4: Considerations in innovation policymaking

There are several features in the environment that can influence the ability of policy makers to design and implement policies oriented to strengthen innovative and absorptive capacities.

Some of these challenges are not exclusive of STI policy; they also affect other development areas. They include for instance the need for balancing the continuity of policies versus the experimentation of new strategies, and the importance of establishing priorities and

identifying the areas that can render the most benefits for the economy. The latter is especially relevant in least developed countries where resources are very limited.

Other challenges, however, are specific to the systemic nature of the innovation system. In this line, we can see the importance of coordination and linkages among the participants of the innovation system; the importance of designing incentives to promote innovation; and the increasing need for producing, managing and understanding information that would allow the design of long term STI policies. The strengthening of strategic intelligence is a difficult endeavor in developed countries because of the human and financial efforts required. It is even more difficult in the case of developing countries when important information may not even be available.

Slide 5: Evolving national innovation policies

Let me now turn to the issue of evolving national innovation policies. Traditionally, supply-side innovation policies have been at the core of the innovation policies. They are usually designed as a response to market failures. Examples of these policies include R&D public grants, venture-capital funding, and creation and strengthening of infrastructure. Broadly speaking, supply-side policies still represent the bulk of policy efforts in STI in many countries.

However, the increasing recognition of the systemic nature of innovation calls for the development of more holistic policies. These efforts should extend beyond the traditional efforts to increase the supply of scientific and technological knowledge. Consideration should focus not only on the market failures of the innovation process as a justification for STI policy. Indeed, attention also needs to be paid to users and linkages. Demand-side innovation policies are a suitable mechanism to achieve these goals.

Several countries, including developed and developing countries, are increasingly using demand-side innovation policies. These policies are focused on creating and orienting demand for innovation, improving the conditions to undertake innovation or to improve the articulation of demand so that innovation and diffusion are fostered. By far the most popular example of demand-side policies is public procurement, but this type of policy also includes regulations, norms and standards, and user and market-led initiatives, among others. During our meeting, we will discuss the main trends on demand-side innovation policies. Sri Lanka for instance will provide an example of how public procurement on ICT has contributed to foster IT local capacities.

Slide 6: Fostering the internationalization of linkages in the national system of innovation

The note prepared by the secretariat also examines the increasing use of open innovation models—which means innovation with partners inside or outside of the firm— at the international level. In this sense, there is growing consensus about the importance of collaboration to complement and strengthen the innovative capacities of firms and individuals. This can be seen, for example, in the trend among transnational organizations to redistribute their innovation activities at different points along their global value chains.

The note covers some aspects of the impact of technological factors on the modalities whereby local firms integrate international global value chains. These are particularly relevant for developing countries, because the potential benefits that firms from these countries can achieve from participating in global value chains will depend on the modalities of their participation in the production networks. In this sense, it is important that policies support the improvement of the capabilities of the local firms. A session on global value chains and innovation capabilities will discuss policies and practical experiences in this area in more detail.

Finally, it is important to consider that international collaboration is not limited to firms. Other innovation players can benefit from participating in international networks of collaboration. These can include benefits in terms of research capacity and STI policy collaborative learning, just to

mention two important ones. We will devote a full session to the role of networks for learning about STI policy-making, and to their potential for facilitating collaboration in this regard. The experts that will participate in this session will share with us their experience in leading STI research and policy networks in Africa, Latin America, and the Mediterranean.

Slide 7: Issues for discussion

Several issues have been proposed for expert discussion during the meeting. The sessions were designed to focus on each of these issues. The questions proposed for discussion are the following:

- What institutional frameworks for policy coordination and collaboration in the area of STI can be suggested as particularly suited to the needs of developing countries?
- What are the learning opportunities for developing countries through participation in STI policy networks? How can developing countries take advantage of these opportunities? Is there a role for UNCTAD?
- How are technology capability gaps and innovation policy environments relevant to a pragmatic approach to technology transfer and diffusion of knowledge in developing countries?
- What are the best strategies for developing countries to take maximum benefit from their integration into GVCs? Which considerations do these countries need to acknowledge when fostering participation in international production networks?
- What can be learned from the experience of developed and developing countries in implementing coordinated supply and demand-side innovation policies? In this area, what are the main trends on demand-side innovation tools?

To deal with these issues, we have put together a group of distinguished academic, policymakers and practitioners, who - we believe - will contribute a great deal of knowledge and

practical experience in these topics. We strongly encourage the rest of the participant to intervene actively from the floor.

I look forward to the exchange of knowledge and experiences that will take place over the next three days. I am sure they will lead to sound, constructive, action-oriented policy recommendations.

I thank you for your attention.